MINERALS

Manitoba's 1981 mineral production was an estimated \$6 \$141 million over 1980. This decrease in value was attribumetal prices and lower copper, nickel, zinc and associate. However, shipments and the value of most industrial minerals, principally nickel, copper and zinc, accounte inerals for 17 per cent of petroleum for 9 per cent of the on. However, shipments and the value of ic minerals, principally nickel, copper and minerals for 17 per cent of petroleum for 9 base metal prices production. Metallic some of 1981 industrial value depressed of II. decrease cent, inc creased. he metal H

metal in pit and Thompson mine is kilograms as production vicom these two mines is proton the cobalt, and precious m ore from pe open million copper, ny, fell to approximately 28 mi month labour dispute. Nickel caddition, Inco production, In fell to annur -month Jompany, nick hompson. 1981 by products Metals rupted

Copper production decreased to about 58 million kilograms in 1981 and zinc production continued to decline to about 39 million kilograms, both in part to Sherritt Gordon Mines being unable to meet production targets at its mines. Besides being associated with nickel ores, copper occurs together with zinc in the Ruttan and Fox mines of Sherritt Gordon and in those of Hudson Bay Mining and Smelting Co., in the Flin Flon and Snow Lake areas.

he smelter admium its at processed inc, and ca ಹ s copper anodes, refined zinc, and amounts of gold, silver, selenium, ores are Bay concentrates from Hudson's Flon to produce conner and s, which contain small as Montreal for refining. and anodes, at 10 refinery shipped opper copper and

4 ate Sherritt (entr conce on's F s Snow Lake mill are ship ber concentrates from Sher randa, Quebec. Zinc concentranda, Quebec. Zinc concentrates from Sherritt Gordon's J Noranda, from tes produced at Hudson Bay's Sne la for further processing. Copper co e smelted at Flin Flon and Norand copper and zinc concentrates fron Flon for additional processing. copper ates I dolumbia are the Flin entr mine and onc shipped Ruttan British Ruttan

Tantalum Mining Corporation produces tantalite concentrates from its Bernic Lake mine, northeast of Winnipeg. The Bernic Lake pegmatite is said to contain the world's largest known reserves of cesium ore, as well as a variety of other rare minerals of potential market value.

cubic decline, to approximately 5 64 million. The province e 1 1981 with 62 wells being being 3 1970 during wells per year decline, continued to about sed to about exploration about 15 I production in 1981 convalue of sales increased the crease in petroleum explanation in 1980 and about 1980 and increase to 27 well value Oil 0 but metres, bu significant rude compares

lime ada cement is produced at Fort Whyte, near Winnipeg, by Canada Inland Cement Industries, using limestone quarried near Stee also quarried north of Mafeking. Steel Brothers Canada production in Faulkner. Dolomitic limestone is quarried at Garson for a. Dolomite for crushed rock is quarried in the Interlake and elsew monumental and building stones) is quarried near Pina troc Industries near Amaranth. Stoneware clay from the Ste. Reale from the Pembina Mountain area are used along with sand to icks. Non-swelling bentonite, used mainly in the clarification of le oil, is produced by Pembina Mountain Clays near Morden. His rom Black Island, in Lake Winnipeg, is used principally in glass ross was produced, mainly for horticultural purposes, by Fishorons was produced, mainly for horticultural purposes, by Fishoron four bogs east of Winnipeg. Sand and gravel for the construction ar Construction Materials at C Stoneware clay from the Ste. R area are used along with sand to d mainly in the clarification of glas g stones) is quarried near omtar Construction Materials h. Stoneware clay from the St by is produced mnsd. OC from from bricks moss shale stone vegetable rotary estr Whitemouth. 5 and (for ortland imestone peat sano faceand building afarge anite ಡ by from 0 silica area 1981 ture and and

dustry are extracted from numerous pits, particularly in the populated portions of Manitoba.

During 1981 the provincial Mineral Resources Division carried out geological mapping programs in the Lynn Lake, Leaf Rapids, Flin Flon, Wabowden, Island Lake and God's Lake areas. Mineral deposit studies were conducted in the Flin Flon, Leaf Rapids, Island Lake areas and in southeasten Manitoba.

Industrial mineral investigations were carried out in the Dawson Bay area evaluating limestone potential and a silica sand resources study was commenced. Geological mapping and investigations of aggregate resources were conducted in the Thompson, Churchill, Minnedosa, Bird's Hill and Turtle Mountain areas during 1981.

In addition, a multi-coloured surficiel geological map of Manitoba at 1: 1 000 000 was released in 1981.

WILDLIFE

The Department of Natural Resources, Wildlife Branch, in its broadest sense, is the legal guardian and steward of the provincial wildlife resources. In ensuring that appropriate and wise use is made of wildlife, the Wildlife Branch is responsible for programs whichprovide a variety of forms and amounts of wildlife use opportunties for the recreational and educational benefit, economic enhancement and enjoyment of Manitobans. The Branch also strives to alleviate wildlife damage to people and property.

Wildlife authorities manage game bird, goose, furbearing and wildlife refuges along with 47 Wildlife Management Areas. Distribution of hunting and trapping pressure through the establishment of specific seasons and bag limits is one management tool used. A licence draw system is used for allocating moose, elk, woodland caribou and wild turkey hunting opportunities. A special landowner elk hunt was inaugurated in 1980 as an incentive for such landowners to retain wildlife habitat.

The Wildlife Branch under authority of the Wildlife Act provides legal protection and management for 28 species of mammals, 45 birds species, 7 reptiles and 4 amphibians. The majority of Manitoba's migrating birds are protected under the Migratory Birds Convention Act, administered in cooperation with the Canadian Wildlife Service. Manitoba's beluga whales and four species of seals are protected by the Federal Fisheries Act.

In 1981/82 the Wildlife Branch administered programs which catered to 86,000 recreational hunter (80,000 residents, 6,000 non-residents), 14,000 trappers and 600 guides. An estimated 250,000 Manitobans (one quarter of the population) participated in some form of non-consumptive wildlife-oriented activity throughout the year.

In 1981/82 Manitoba trappers harvested \$8,240,000 worth of wild fur. Long-haired species continued to be popular on the market, however, beaver and muskrat remained the mainstay of Manitoba's wild fur industry. Values for major furbearers are as follows: muskrat - \$2,298,900; beaver - \$1,632,780; lynx - \$1,229,100; red fox -\$661,570; fish - \$395,590; and coyote - \$374,625.

TOURISM AND RECREATION

In 1981, an estimated 3,063,000 tourists visited Manitoba from other parts of Canada, the United States, and abroad. The amount of money spent by these visitors and Manitobans holidaying in their own province is estimated to be about \$486 million.